second lemma oblong-acute, 2-3 mm long, delicate, hyaline, faintly 3-nerved; lodicules 2, obovate, each *c.* 0.5 × 0.25 mm, concave at apex.

The specific epithet is in honour of Dr. M. Parameswaran Nayar, Director, Botanical Survey of India, for his outstanding contributions to Indian Botany.

Bothriochloa kuntzeana	*Bothriochloa parameswaranii* sp. nov.
1. Culms 40-80 cm tall, stout	Culms up to 30 cm tall, slender
2. Leaf blades 30-50 cm long, 4-6 mm wide	Leaf blades up to 10 cm long, 2-3 mm wide
3. Nodes densely bearded	Nodes entirely glabrous
4. Sessile spikelets 4.5-5 mm long	Sessile spikelets smaller, up to 4 mm long
5. Pit on the lower glume of the pedicelled spikelets solitary, deep	Pits on the lower glume of the pedicelled spikelets 1-4, shallow
6. Anthers *c.* 2 mm long	Anthers 1-1.25 mm long

Holotype: KERALA, Idukki Dt: Eravikulam National Park, ± 2100 m, 14th February 1981, *P. V. Sreekumar* 71858 (CAL). Isotypes in K & MH.

Rare. Grasslands at higher elevations.

This species is allied to *Bothriochloa kuntzeana* but differs markedly from it as shown in the above table.

ACKNOWLEDGEMENTS

We thank Dr. T. A. Cope of the Royal Botanic Gardens, Kew, England for his valuable opinion on the specimens and Dr. N. P. Balakrishnan, Scientist SE, Botanical Survey of India, Coimbatore-3 for kindly going through the manuscript.

DESCRIPTION OF A NEW SPECIES OF THE GENUS *ALEUROLOBUS* QUAINTANCE & BAKER (1914) (ALEYRODIDAE: HOMOPTERA)[1]

B. V. DAVID,[2] R. W. ALEXANDER JESUDASAN[3] AND GEORGE MATHEW[4]

(*With three text-figures*)

The genus *Aleurolobus* Quaintance & Baker (1914) is represented in India by twenty six species (Alexander Jesudasan 1987). An aleyrodid species collected from *Gmelina arborea* was found to be distinct from the known species of *Aleurolobus* which is described in this paper.

Aleurolobus gmelinae sp. nov. (Figs. 1-3)

Pupal case: White with waxy secretion, oval. ♀ 0.825-0.875 mm long and 0.565-0.590 mm wide, ♂ 0.680-0.710 mm long and 0.425-0.440 mm wide, found severely infesting the undersurface of leaves.

Margin: Irregularly dentate, about 8-10 dentations in 0.1 mm; thoracic and caudal tracheal pores and combs wanting; paired anterior and posterior marginal setae evident, measuring 17.5-30 μ and 20-60 μ long, respectively.

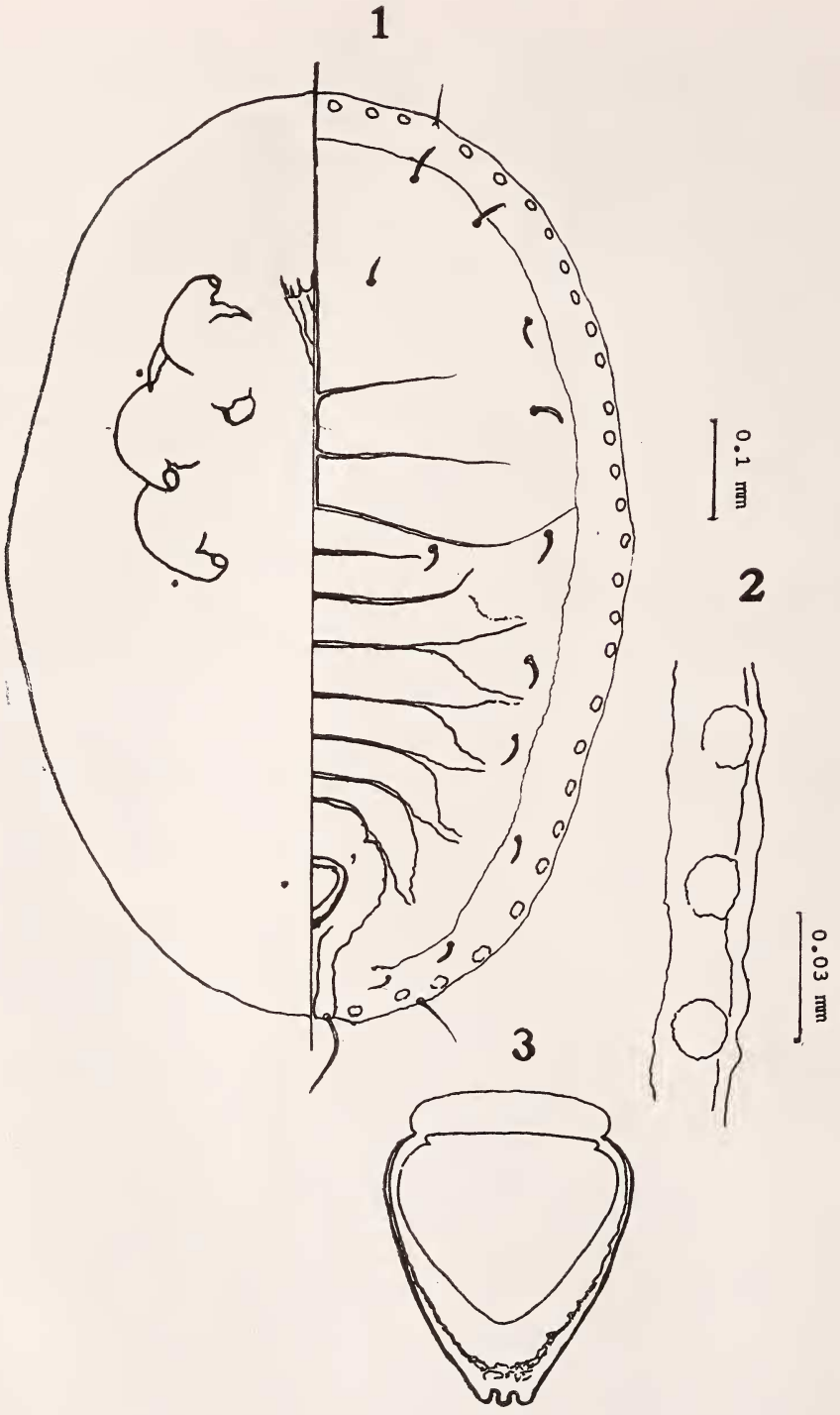
Dorsal surface: Submargin with a row of paired wax secreting tubercles placed very close to the margin; width of submargin 60 μ. Longitudinal and transverse moulting sutures

[1] Accepted June 1987.

[2] Director, Fredrick Institute of Plant Protection and Toxicology, Padappai-601 301, India. *Present address*: Rhone-Poulenc Agrochemicals (India) Ltd., May Baker House, Worli, Bombay 400 025.

[3] Assistant Professor of Zoology, Madras Christian College, Madras-600 059, India.

[4] Scientist, Division of Entomology, Kerala Forest Research Institute, Peechi-680 653, India.



Figs. 1-3. 1. Pupal case of *Aleurolobus gmelinae* sp. nov.;
2. Margin and Submargin; 3. Vasiform orifice.

thin, the former not reaching the margin while the latter reaching submargin. Pro-meso and meso-metathoracic sutures distinct. Abdominal segment sutures 3-7 not reaching submargin. Paired dorsal setae evident: cephalic 22.5 μ, first abdominal of the same length, eighth abdominal 12.5 μ and caudal setae 75 μ long. The tips of the cephalic and first abdominal setae blunt while it is tapering in the eighth abdominal and caudal setae. Seven pairs of blunt subdorsal setae present, four on cephalothorax and three on the abdomen laterad of abdominal segments one, four and five, 21.25 μ long. Three pairs of submarginal setae laterad of abdominal segments six, seven and posterolaterad of eighth abdominal segment, 21.25 μ long.

Vasiform orifice triangular shaped, 70 μ long and 59.5 μ wide; operculum cordate shaped concealing lingula, wider than long, 42.5 μ long and 48.75 μ wide. Three tooth-like processes evident at base of vasiform orifice. Caudal furrow indicated.

Ventral surface: Thoracic and caudal tracheal folds not discernible; paired ventral abdominal setae 17.5 μ long and 47.5 μ apart. Antenna of male 120 μ long reaching mesothoracic legs while that of female 77.7 μ long. Mouth parts, spiracles and adhesive sacs distinct.

Material examined: *Holotype*: 1 ♀, *Gmelina arborea*, Peechi (Kerala State), 29.10.1986, Coll. George Mathew.

Paratype: 7 pupal cases (3 ♀♀, 4 ♂♂) on slides bearing same data as of holotype: 3 have been retained in the collections of B. V. David and the rest will be deposited in the collections of the Zoological Survey of India, Calcutta; Division of Entomology, Indian Agricultural Research Institute, New Delhi; Systematic Entomology Laboratory, USDA, Maryland, U.S.A.; and the British Museum (Natural History), London, U.K.

Pupal cases on dry leaves of *Gmelina arborea* in the collections of BVD.

This species resembles *Aleurolobus confusus* David & Subramaniam, 1976 in the colour and shape of the pupal case and also by the presence of blunt setae but differs from it in the shape of vasiform orifice and lingula not exposed and absence of thoracic and caudal tracheal folds.

Thanks are due to the ICAR for funding a scheme on the Taxonomy of Indian Aleyrodidae.

References

Alexander, Jesudasan, R. W. (1987): Taxonomic studies on some Indian Aleyrodidae (Homoptera: Insecta). Thesis submitted to the University of Madras for the award of Ph.D. degree. pp. 274.

David, B. V. & Subramaniam, T. R. (1976): Studies on some Indian Aleyrodidae. *Rec. Zool. Surv. India 70*: 133-233.

Quaintance, A. L. & Baker, A. C. (1914): Classification of the Aleyrodidae, Part II. *U.S. Dept. Agric. Bur. Ent. Tech. Ser.*, *27*(2): 94-109.